DaimlerChrysler AG

Patent claims

1. A method for generating electrical energy using at least one fuel cell which has a membrane unit for direct or indirect separation and/or for transporting charge carriers and/or reaction gases, it being possible for gaseous fuel to be fed to an anode on one side of a polymer membrane belonging to the membrane unit and for an oxidizing gas to be supplied to a cathode on the other side of the polymer membrane, and for reaction products to be discharged, characterized in that the membrane unit (1), while the fuel cell is operating, is held in a position which has an angle of inclination of 45° or a smaller angle of inclination with respect to the horizontal.

2. The method as claimed in claim 1, characterized in that the membrane unit (1) is held in a plane which runs at right angles to the direction (11) of the force of gravity.

3. An arrangement for generating electrical energy having at least one fuel cell which has a membrane unit for direct or indirect separation and/or for transporting charge carriers and/or reaction gases, it being possible for gaseous fuel to be fed to an anode on one side of a polymer membrane belonging to the membrane unit and for an oxidizing gas to be supplied to a cathode on the other side of the polymer membrane, and for reaction products to be discharged, characterized in that a membrane unit (1) of the fuel cell is connected to a carrier in such a manner that it has an angle of inclination of 45° or a smaller angle of inclination with respect to the horizontal.

4. The arrangement as claimed in claim 3, characterized in that the membrane unit (1) is arranged in a fuel cell in a road vehicle (12) for transporting goods and/or passengers, along a plane which, in the horizontal position of the vehicle (12), runs at a right angle or virtually at a right angle to the direction (16) of the force of gravity.